

July 1, 2004

To: Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Fr: George O. Saile, Reg. No. 19,572 28 Davis Avenue Poughkeepsie, N.Y. 12603

Subject:

Serial No. 10/828,888 04/21/04

Lijie Guan et al.

A FOUR SIDED SHIELD STRUCTURE FOR A PERPENDICULAR WRITE HEAD

INFORMATION DISCLOSURE STATEMENT

Enclosed is Form PTO-1449, Information Disclosure Citation In An Application.

The following Patents and/or Publications are submitted to comply with the duty of disclosure under CFR 1.97-1.99 and 37 CFR 1.56.

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 450, Alexandria, VA 22313-1450, on July 2, 2004.

George O. Saile, Reg. No. 19572

Signature/Date Horse J. Sailo 7/2/04

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HTIRC-03-014

- U.S. Patent 5,173,821 to Maloney, "Adaptive-Gap Magnetic Recording and Reading Head," describes a tapered pole.
- U.S. Patent 5,995,343 to Imamura, "Magnetic Head with Specified Tapered Pole Tip Width Ratio," describes a tapered pole portion at the tip.
- U.S. Patent 5,600,519 to Heim et al., "Controlled Saturation Thin Film Magnetic Write Head," teaches the use of a tapered pole tip to increase the head field.
- U.S. Patent 4,935,832 to Das et al., "Recording Heads with Side Shields," discloses side shields around the write pole.

The article "One Terabit per Square Inch Perpendicular Recording Conceptual Design," by Mallary et al., IEEE Trans. on Magnetics, Vol. 38, No. 4, July 2002, pp. 1719-1724, discusses analysis based on the use of a high-gradient shielded pole write head which indicates that a one terabit per square inch perpendicular recording system can be realized.

Sincerely,

George O. Saile Reg. No. 19572

Doctor (Openio) Form PTO-1449 VFORMATION DISCLOSURE CITATION AN APPLICATION Applicant JUL 0 6 2004 (so the votal shoots if nocessary) FMng Det U. S. PATENT DOCUMENTS MILL DOCUMENT HUMBER DATE HAME CLUSS **JUBCIAL** # APPROPRIATE 360 360 126 360 360 112 FOREIGN PATENT DOCUMENTS Translation **COCUMENT NUMBER** OATE COUNTRY cuss SUBCLASS OTHER DOCUMENTS (Including Author, Tible, Dale, Perliners Pages, Eic.) EXAMINER DATE CONCLERED EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through

citation if not in conformance and not considered. Include copy of this form with next communication to the applicant